

CELSTRAN® PA66-GF20-02P11/12

PA66 with 20% ash content

Nylon 66 reinforced by 20 weight percent long glass fibers. The pellets are cylindrical and normally as well as the embedded fibers 10 mm long.

Parts molded of CELSTRAN have outstanding mechanical properties such as high strength and stiffness combined with high heat deflection. The notched impact strength is increased at elevated and low temperatures due to the fiber skeleton built in the parts. The long fiber reinforcement reduces creep significantly.

The very isotropic shrinkage in the molded parts minimizes the warpage.

Complex parts can be manufactured with high reproducibility by injection molding.

Can be used for substituting die cast metal with the advantage of Weight reduction, no corrosion problems, no post treatment.

Typical mechanical properties

	dry/cond.		
Tensile Modulus	8300 / 5800	MPa	ISO 527-1/-2
Stress at break, 5mm/min	125 / 120	MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.6 / 2.6	%	ISO 527-1/-2
Flexural Modulus	7100 / 5000	MPa	ISO 178
Flexural Strength	190 / 190	MPa	ISO 178
Charpy impact strength, 23°C	41 / 42	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	52 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	24 / 16	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	27 / -	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	19 / 16	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C	21	kJ/m ²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	260 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	260 °C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	238 °C	ISO 75-1/-2

Other properties

Density	1300 kg/m ³	ISO 1183
---------	------------------------	----------

Injection

Drying Temperature	70 - 80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	0.15 %
Screw tangential speed	0.1 m/s
Max. mould temperature	80 - 100 °C
Back pressure	3 MPa
Injection speed	medium

Printed: 2023-09-18

